

POLYESTER LAMINATE MATERIALS

Abstract of the Disclosure

This invention relates to methods and apparatus for making articles made of polyester, preferably polyethylene terephthalate (PET), having coated directly to at least one of the surfaces thereof one or more layers of thermoplastic material with good gas-barrier characteristics. In one preferred method and apparatus, preforms are injection molded, barrier-coated immediately thereafter, and remain on a mold portion for a time to speed cooling of the completed preform. Preferably the barrier-coated articles take the form of preforms coated by at least one layer of barrier material and the containers are blow-molded therefrom. Such barrier-coated containers are preferably of the type to hold beverages such as soft drinks, beer or juice. The preferred barrier materials have a lower permeability to oxygen and carbon dioxide than PET as well as key physical properties similar to PET. The materials and methods provide that the barrier layers have good adherence to PET, even during and after the blow molding process to form containers from preforms. Preferred barrier coating materials include poly(hydroxyamino ethers).

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